What is claimed is:

1. A sensor apparatus comprising:

a single focusing objective lens for receiving radiation from a scene;

a beamsplitter for receiving radiation from said objective lens and dividing the received radiation into first and second components;

a first focal plane array receiving said first component of said radiation and sensing in a subspectrum of the visible/NIR/SWIR spectral region to produce a corresponding first output signal;

a second focal plane array receiving said second component of said radiation and sensing in a subspectrum of the Thermal IR 3-15 micron spectral region to produce a second output signal; and

a composite signal output related to the signal outputs of said first and second focal plane arrays.

2. A sensor apparatus described in claim 1 which additionally includes an intensifier optically coupled to the focal plane array sensing in a subspectrum of the visible/NIR/SWIR spectral region.

3. A sensor apparatus described in claim 2 where the signal output is connected to a display device.

- 4. A sensor apparatus described in claim 3 including a control panel by which a user can manipulate the processing of signal outputs from the two focal plane arrays to produce a desired displayed visualization.
- 5. A sensor apparatus described in claim 4 which is assembled into a compact hand-held device.